

METHOD FOR MEDIUM ACCESS CONTROL LAYER PROTOCOL IN A DISTRIBUTED ENVIRONMENT

ABSTRACT

A method for allocating resources of a shared medium in a large
5 distributed network. The nodes make reservation requests in parallel
during a series of reservation time slots. For each slot, one node of a pair
transmits a request and the other listens. A node transmits its own
requests and the requests of nodes from the request it received. The process
repeats until all nodes have transmitted their requests for medium access,
10 wherein one node knows the medium access requests of all the nodes in the
network. In this fashion, 1024 nodes can make their requests in ten time
slots. The last node may be a master node or may transmit to a master
node or base station, which transmits a full or partial grant. Alternatively,
the nodes may simultaneously transmit their requests to a master node,
15 which passes the groups requests to a master node nearer the base station.